

DETAILED ACTION

The response filed December 20, 2011 presents remarks and arguments submitted to the office action mailed June 20, 2011 is acknowledged.

Applicant's arguments over the 35 U.S.C. 103(a) rejection of claims 1-5 and 16-19 over Miyazawa et al, 2001 (*Current Therapeutic Research* Vol. 62(9), provided in the 05/05/2009 restriction requirement), in view of Straub (US Patent 6,395,300 (Publication date: 05/28/2002), is not persuasive. Therefore, the rejection is herewith maintained.

Response to Arguments

Applicant's arguments filed December 20, 2011 have been considered.

Applicant argues Straub does not disclose or suggest the existence of tamsulosin hydrochloride in amorphous form. Miyazawa discloses very non-specific "porous drug matrices and methods of manufacture thereof." Miyazawa includes an extensive list of potential so-called "preferable" drugs that are contemplated--found at the bottom of Column 7 and including well over 100 drugs. However, Miyazawa says nothing about the preparation of amorphous tamsulosin hydrochloride. In fact, Miyazawa gives no specific examples or any suggestion whatsoever that an amorphous form of tamsulosin hydrochloride even exists.

Applicant is reminded that the rejection was an obviousness type rejection based on the teachings of Miyazawa et al. and Straub, not an anticipatory rejection. In fact the general disclosure of tamsulosin hydrochloride in Miyazawa et al. renders obvious the different forms. However, the Examiner has also relied on the teaching of Straub

Art Unit: 1627

wherein various active agents inclusive of tamsulosin hydrochloride are in a crystalline state, an amorphous state, or mixtures thereof. The Examiner states selection of a known material based on its suitability for its intended use is obvious absent a clear showing of unexpected results attributable to the applicant's specific selection. See e.g., *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

With respect to the arguments regarding the methods of preparation, the examiner reiterates, the claims 1 and 16-18 are product by process claims. It is well settled in patent law that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP § 2123. The court in *In re Thorpe* held, “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the method of making the composition as claimed does not render structural limitations to the claimed composition. Thus, the processes are not given patentable weight. In claim 1, the formulation of the water-repellent resin powder “prepared by lyophilization of tamsulosin hydrochloride dissolved in a solution” is not given patentable weight. Also, in claim 16-18 the formulation “characterized in that, prior to lyophilization, the tamsulosin hydrochloride is dissolved in a solvent to form a mixture having a concentration of from about 0.5 grams tamsulosin hydrochloride per liter of solvent to

Art Unit: 1627

about 5.0 grams of tamsulosin hydrochloride per liter of solvent" or "prior to lyophilization, the tamsulosin hydrochloride mixture remains frozen from about 12 hours to about 56 hours" is not given weight. Additionally, the reference teaches a process that includes (i) dissolving a drug, preferably a drug having low aqueous solubility, in a volatile solvent to form a drug solution (which reads on the limitation of claim 19).

In view of the addition of a new claim 20, a modified 103(a) rejection is made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al, 2001 (*Current Therapeutic Research* Vol. 62(9), provided in the 05/05/2009 restriction requirement), in view of Straub (US Patent 6,395,300 (Publication date: 05/28/2002), hereafter referred to as the '300 patent).

Miyazawa et al, 2001 teaches tamsulosin hydrochloride is a potent $\alpha 1$ -adrenergic receptor agonist for therapeutic use in benign prostatic hyperplasia in i.e. 0.4 mg (page 604, paragraph 1, lines 1-5).

The prior art teachings of Miyazawa et al, 2001 differ from the claimed invention as follows: Miyazawa et al, 2001 does not disclose an amorphous form of tamsulosin hydrochloride.

Art Unit: 1627

However, the '300 patent teaches all the limitations that are deficient in Miyazawa et al, 2001: The '300 patent discloses a method for producing drugs in a crystalline state, an amorphous state, or mixtures thereof depending on how droplets are dried and the excipients present (column 12, lines 42-45) wherein the preferred drugs include tamsulosin hydrochloride (column 7, lines 45-64) (which reads on the limitation of an at least 75% pure amorphous tamsulosin). Further, the '300 patent teaches it would be obvious to prepare tamsulosin hydrochloride by the method of lyophilization (column 2, lines 15-57; column 11, lines 12-25; column 11, lines 47-61; column 12, lines 18-45; and claims 1-4) which is the same method of preparation as instantly disclosed (instant specification, page 4, lines 3-15). Additionally, the reference teaches a process that includes (i) dissolving a drug, preferably a drug having low aqueous solubility, in a volatile solvent to form a drug solution (which reads on the limitation of claim 19). The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. In the instant application the applicant claims profiles of the compound using DSC thermogram, IR spectrum, X-ray powder diffraction. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

Per MPEP § 2141 and KSR as discussed *supra*, by employing the rationale in (C) above, it would be obvious for one of ordinary skill in the art to attempt use a

Art Unit: 1627

process of improving dissolution on any of the preferred drugs, including tamsulosin hydrochloride, as the process in the '300 patent provides a method to overcome a rate-limiting step to attain therapeutically effective drug doses (column 1, lines 17-19). The success in processing these therapeutic agents provides one of ordinary skill with a reasonable expectation for success. Also, the number of "identified, predictable solutions" would be any preferred drug which would all be "obvious to try" in the method claimed in the instant application. Thus, it would have been *prima facie* obvious at the time the invention was made for one of ordinary skill in the art to use a process to improve the dissolution of a preferred drug ('300, column 7, line 45 to column 8, line 9).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the tamsulosin hydrochloride of Miyazawa et al, 2001 to produce an amorphous form as taught in the '300 patent.

One of ordinary skill in the art would have been motivated to do this because the '300 patent provides a method which enhances the dissolution rate of low solubility drugs in aqueous biological fluids (column 3, lines 41-46) and provides a method to overcome a rate-limiting step to attain therapeutically effective drug doses ('300, column 1, lines 11-14 and column 1, lines 17-19). In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of

Art Unit: 1627

ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Claims 1 and 16-18 are product by process claims. It is well settled in patent law that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP § 2123. The court in In re Thorpe held, “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the method of making the composition as claimed does not render structural limitations to the claimed composition. Thus, the processes are not given patentable weight. In claim 1, the formulation of the water-repellent resin powder “prepared by lyophilization of tamsulosin hydrochloride dissolved in a solution” is not given patentable weight. Also, in claim 16-18 the formulation “characterized in that, prior to lyophilization, the tamsulosin hydrochloride is dissolved in a solvent to form a mixture having a concentration of from about 0.5 grams tamsulosin hydrochloride per liter of solvent to about 5.0 grams of tamsulosin hydrochloride per liter of solvent” or “prior to lyophilization, the tamsulosin hydrochloride mixture remains frozen from about 12 hours to about 56 hours” is not given weight.

Applicant's amendment necessitated the new ground(s) of rejection presented in

Art Unit: 1627

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Layla Soroush whose telephone number is (571)272-5008. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1627